

CHAPTER 1.0

EXECUTIVE SUMMARY

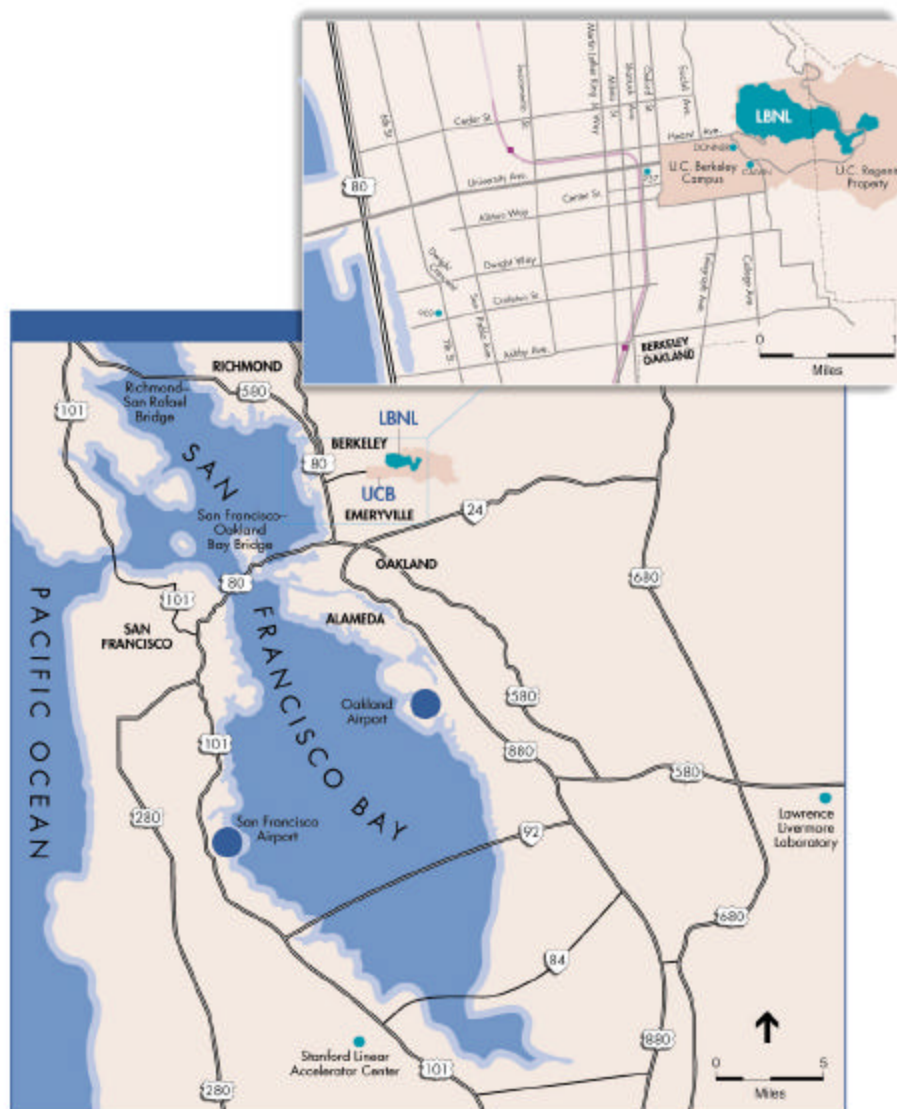
Lawrence Berkeley National Laboratory (LBNL) proposes to build a six-story, approximately 86,500 gross square foot (gsf) Molecular Foundry building; and an adjacent 8,000 gsf, partly below-grade Central Utility Plant building (for a combined 94,500 gsf), to be funded and operated by the U.S. Department of Energy's Office of Basic Energy Sciences. The buildings would be located on an approximately 2½-acre site in the southeastern portion of the LBNL facility in the Oakland-Berkeley hills (see Figures 1 and 2). The site is on mostly undeveloped slopes between Building 72, which is the National Center for Electron Microscopy (NCEM), and Building 66, which is the Surface Science and Catalysis Laboratory (SSCL).

The Molecular Foundry building would include laboratories, offices, and conference and seminar rooms; the Central Utility Plant would also serve as the foundation for 16 surface parking spaces. A new plaza and pedestrian bridges would connect or provide ready access between the proposed Molecular Foundry building and adjacent scientific buildings. The Proposed Action would extend Lee Road approximately 350 feet, and widen a portion of the road to accommodate two-way traffic.

The Molecular Foundry would be staffed and/or used by an estimated 137 persons, of whom an estimated 59 would be staff persons, 36 would be students, and 42 would be visitors (i.e., visiting scientists) to the Center. The Proposed Action would require removal of an existing paved 18-space parking lot and retaining walls, as well as excavation into an undeveloped hillside. Approximately two-dozen mature trees would be removed along with approximately one-dozen saplings. The Proposed Action would replant or replace trees, generally in-kind and in or around the site. LBNL anticipates it would reuse all soil excavated for the Molecular Foundry to construct the new Lee Road extension and widen the existing roadway. This Proposed Action would be a resource for the Department of Energy's participation in the National Nanotechnology Initiative (NNI). Nanotechnology is the design, fabrication, characterization, and use of materials, devices, and systems through the control of matter at the nanometer-length scale.¹ Nanoscience will develop the understanding of building blocks at the nanometer-length scale and the methods by which they are assembled into multi-component devices.

Alternatives to the Proposed Action include a reduced size building configuration, location of the building on a different on-site location, and a No Action alternative. Several off-site alternatives were considered but were not found to reasonably meet the purpose and need for the Proposed Action. Of the reasonable alternatives analyzed, the Proposed Action is found to best meet DOE's purpose and need for action.

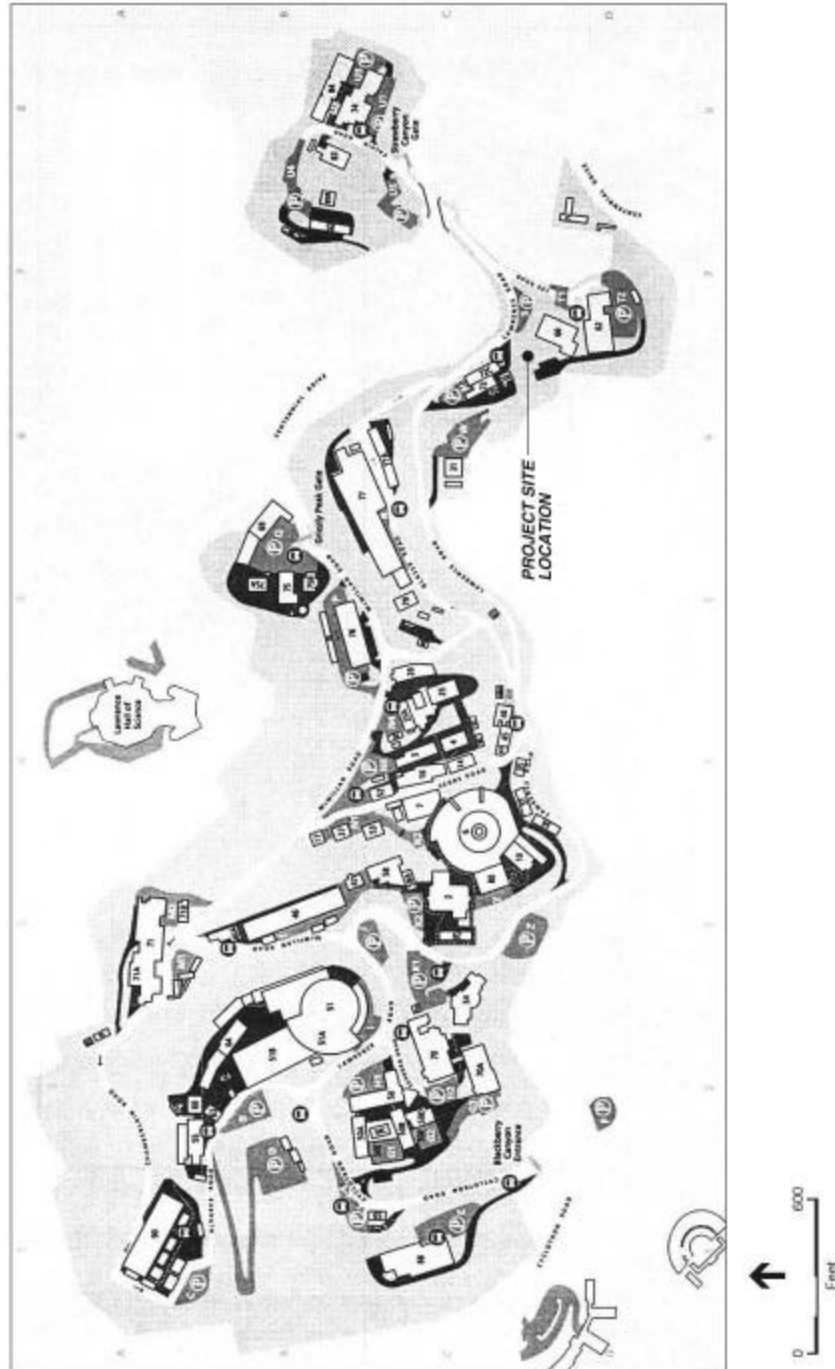
¹ The term "nanometer" describes a length of one-billionth of a meter.



SOURCE: Lawrence Berkeley National Laboratory (2002)

LBNL Molecular Foundry (2021) ■

Figure 1
Regional Location Map



■ LBNL Molecular Foundry / 202211
Figure 2
 Lawrence Berkeley National Laboratory, Berkeley, CA
 Site Location Map

SOURCE: Lawrence Berkeley National Laboratory (2002)

Although the Proposed Action would take place on a partially developed site that is generally surrounded by existing buildings and roads, the site is near to designated Critical Habitat of the Federally-listed Alameda Whipsnake. To minimize any potential but unexpected impact to the Alameda whipsnake, several mitigation measures are proposed (see below). In addition, the Proposed Action would result in minor increases in stormwater runoff, air pollutant emissions, visual quality impacts, noise impacts, and the potential to disturb unanticipated archaeological resources. It would produce marginal increases in traffic and parking demand, as well as incremental demand increases for water, energy, wastewater treatment, waste disposal, and public services.

The following impact is found to be potentially significant without mitigation in this Environmental Assessment:

Impact:

Although the site is not located in USFWS-designated critical habitat, due to the potential for Alameda whipsnake movement into the project area, mitigation measures would be implemented to ensure that whipsnakes are protected to the greatest extent possible during project construction

Mitigation Measures:

- Prior to the initiation of excavation, construction, or vehicle operation, the project area shall be surveyed by a designated monitor, trained in Alameda whipsnake identification and ecology by a qualified biologist, to ensure that no Alameda whipsnakes are present. This survey shall not be intended to be a protocol-level survey, but rather one designed to verify that no snakes are actually on site.
- All on-site workers shall attend an Alameda whipsnake information session conducted by the designated monitor. This session shall cover identification of the species and procedures to be followed if an individual is found on site.
- All lay-down and deposition areas shall be inspected each morning by a designated monitor to ensure that Alameda whipsnakes are not present. All construction activities that take place on the ground shall be performed in daylight hours. Vehicle speed on site shall not exceed 15 miles per hour. Construction materials, soil, construction debris, or other material shall be deposited only on areas where vegetation has been mowed and any snakes present would be readily visible.
- The site is subject to annual vegetation management involving the close-cropping of all grasses and ground cover on the project area; this management shall be done prior to initiation of construction. Re-mowing shall be done if grass or other vegetation on the project site becomes high enough to conceal whipsnakes during the construction period.

Significance After Mitigation: Less than significant.

NEPA PROCESS

A Draft Environmental Assessment was circulated for Agency and public review and comment on December 10, 2002; comments were requested to be received by January 13, 2003.

As part of the public notification process, only one individual or organization commented on the draft, regarding water service, wastewater, and water conservation. The EA has been revised to clarify the source and distribution of LBNL's water service and to address adequacy of wastewater system capacity (see Section 4.3.10). Section 3.1.4 has been revised to clarify requirements for irrigation and selection of water-conserving plants.

Additional refinements and clarifications have been made to the Final EA. Please refer to Appendix E (page E-1) for a detailed account of changes from the Draft EA. None of these additions, changes, or refinements represents the introduction of substantial new information that would indicate a new or significant impact or that would change the conclusions drawn from this analysis.